What is claimed is:

1. A system, comprising:

an electrode system which includes at least one electrode;

control circuitry, where the control circuitry is coupled to the electrode system from which a first cardiac signal is sensed, and where the control circuitry includes:

a pulse circuit coupled to the electrode system, where the pulse circuit produces electrical pulses at a first value to be delivered to the electrode system in a first cardiac region;

a depolarization circuit coupled to the electrode system, where the depolarization circuit detects in the first cardiac signal an occurrence of cardiac depolarizations in a second cardiac region that occurs in direct reaction to electrical pulses generated by the pulse circuit; and

a pulse adjustment circuit coupled to the pulse circuit, where the pulse adjustment circuit modifies the first value of the electrical pulses when the depolarization circuit detects the occurrence of a cardiac depolarization in the second cardiac region that occurs in direct reaction to an electrical pulse delivered to the at least one electrode in the first cardiac region.

2. The system of claim 1, where the pulse adjustment circuit lowers the first value of the electrical pulses by a first amount when the depolarization circuit detects the occurrence of the cardiac depolarization in the second cardiac region that occurs in direct reaction to the electrical pulse delivered to the electrode system in the first cardiac region.

3. The system of claim 2, where the first value of the electrical pulses is a first voltage value and the first amount the pulse adjustment circuit lowers the first voltage value is a percentage of the first voltage value.

4. The system of claim 2, where the first value of the electrical pulses is a first voltage value and the first amount the pulse adjustment circuit lowers the first voltage value is approximately 0.2 volts.

5. The system of claim 2, where the first value of the electrical pulses is a first energy value and the first amount the pulse adjustment circuit lowers the first energy value is a percentage of the first energy value.

6. The system of claim 1, where the pulse adjustment circuit sets the first value of the electrical pulses based on a threshold test.

7. The system of claim 6, where the threshold test is conducted by the control circuitry in which the pulse circuit delivers test pacing pulses at values over a first value range to the at least one electrode, where the first value range includes an initial high-test pacing pulse for which the depolarization circuit detects a depolarization in the first cardiac region and the second cardiac region, and where the values of the test pacing pulses are reduced over the first value range at first intervals until the second cardiac region is no longer depolarized by the test pacing pulses at a second cardiac region pacing threshold value and until the first cardiac region is no longer depolarized by the test pacing pulses at a first cardiac region pacing threshold value, where the pulse adjustment circuit sets the first value based on the first cardiac region pacing threshold

value and the second cardiac region pacing threshold value.

8. The system of claim 7, where the pulse adjustment circuit sets the first value at a value midway between the first cardiac region pacing threshold value and the second cardiac region pacing threshold value.

9. The system of claim 8, where the pulse adjustment circuit adds a safety margin value to the first value midway between the first cardiac region pacing threshold value and the second cardiac region pacing threshold value.

10. The system of claim 7, where the first value range is approximately one (1) volt to ten (10) volts, and the initial high-test pacing pulse has a voltage value of approximately ten (10) volts.

11. The system of claim 6, where the threshold test is conducted by the control circuitry in which the pulse circuit delivers test pacing pulses at values over a first value range to the at least one electrode, where the first value range includes an initial low-test pacing pulse for which the depolarization circuit fails to detect a depolarization in the first cardiac region and the second cardiac region, and where the values of the test pacing pulses are increased over the first value range at first intervals until both the first cardiac region depolarize from the test pacing pulse and the second cardiac region does not depolarize from the test pacing pulse at a first cardiac region pacing threshold value and until the first cardiac region and the second cardiac region are depolarized by the test pacing pulse at a second cardiac region pacing threshold value, where the pulse

adjustment circuit sets the first value based on the first cardiac region pacing threshold value and the second cardiac region pacing threshold value.

12. The system of claim 11, where the pulse adjustment circuit sets the first value at a value midway between the first cardiac region pacing threshold value and the second cardiac region pacing threshold value.

13. The system of claim 12, where the pulse adjustment circuit adds a safety margin value to the first value midway between the first cardiac region pacing threshold value and the second cardiac region pacing threshold value.

14. The system of claim 11, where the first value range is approximately one (1) volt to ten (10) volts, and the initial low-test pacing pulse has a voltage value of approximately one (1) volt.

15. The system of claim 1, where the electrode system includes a first cardiac lead and a second cardiac lead, where the first cardiac lead includes at least one electrode coupled to the control circuitry from which the first cardiac signal is sensed, and where the second cardiac lead includes at least one electrode coupled to the control circuitry from which the control circuitry detects a second cardiac signal and the depolarization circuit detects in the second cardiac signal cardiac depolarizations in the second cardiac region as a result of electrical pulses delivered to the first cardiac region.

16. A method, comprising:

delivering electrical pulses at a first value to a first cardiac region;

sensing at least one cardiac signal, where the cardiac signal includes indications of cardiac depolarizations;

detecting from the cardiac signal a cardiac depolarization from a second cardiac region which occurs in direct reaction to an electrical pulse delivered to the first cardiac region; and

modifying the first value of the electrical pulses when the cardiac depolarization which occurs in direct reaction to the electrical pulse delivered to the first cardiac region is detected from the second cardiac region.

17. The method of claim 16, where delivering electrical pulses includes delivering electrical pulses at the first value to a supraventricular location, and detecting from the second cardiac region includes detecting from a ventricular cardiac region.

18. The method of claim 16, where modifying the first value of the electrical pulses includes lowering the first value of the electrical pulses by a first amount when the cardiac depolarization in the second cardiac region occurs in direct reaction to the electrical pulse delivered to the first cardiac region.

19. The method of claim 18, where lowering the first value includes lowering the first value of the electrical pulses by a first percentage of the first voltage value.

20. The method of claim 18, where lowering the first value includes lowering the first value of the electrical pulses by approximately two tenths (0.2) volts.

21. The method of claim 16, including conducting a threshold test, and setting the first value of the electrical pulses based on the threshold test.

22. The method of claim 21, where conducting the threshold test includes delivering test pacing pulses, including an initial high-test pacing pulse, at values over a first value range to the first cardiac region;

analyzing the cardiac signal for cardiac depolarizations from the first cardiac region and the second cardiac region which occur as a result of the initial high-test pacing pulse;

reducing the values of the test pacing pulses over the first value range until a second cardiac region pacing threshold value is reached where the second cardiac region is no longer depolarized and the first cardiac region is depolarized by the test pacing pulses;

continuing to reduce the values of the test pacing pulses over the first value range until a first cardiac region pacing threshold value is reached where both the first cardiac region and the second cardiac region are no longer depolarized by the test pacing pulses; and

setting the first value based on the first cardiac region pacing threshold value and the second cardiac region pacing threshold value.

23. The method of claim 22, including setting the first value at a value midway between the first cardiac region pacing threshold value and the second cardiac region pacing threshold value.

24. The method of claim 23, including adding a safety margin value to the first value midway between the first cardiac region pacing threshold value and the second cardiac region pacing threshold value.

25. The method of claim 21, where conducting the threshold test includes delivering test pacing pulses, including an initial low-test pacing pulse, at values over a first value range to the first cardiac region;

analyzing the cardiac signal for cardiac depolarizations from the first cardiac region and the second cardiac region which occur as a result of the initial low-test pacing pulse;

increasing the values of the test pacing pulses over the first value range until a first cardiac region pacing threshold value is reached where the first cardiac region is depolarized and the second cardiac region is not depolarized by the test pacing pulses;

continuing to increase the values of the test pacing pulses over the first value range until a second cardiac region pacing threshold value is reached where both the first cardiac region and the second cardiac region are depolarized by the test pacing pulses; and

setting the first value based on the first cardiac region pacing threshold value and the second cardiac region pacing threshold value.

26. The method of claim 25, including setting the first value at a value midway between the first cardiac region pacing threshold value and the second cardiac region pacing threshold value.

27. The method of claim 26, including adding a safety margin value to the first value midway between the first cardiac region pacing threshold value and the second cardiac region pacing threshold value.

28. A system, comprising:

means for delivering electrical pulses at a first value to a first cardiac region;

means for sensing at least one cardiac signal, where the cardiac signal includes indications of cardiac depolarizations;

means for detecting from the cardiac signal a cardiac depolarization from a second cardiac region which occurs in direct reaction to an electrical pulse delivered to the first cardiac region; and

means for modifying the first value of the electrical pulses when the cardiac depolarization which occurs in direct reaction to the electrical pulse delivered to the first cardiac region is detected from the second cardiac region.

29. The system of claim 28, where the means for delivering electrical pulses includes means for delivering electrical pulses at the first value to a supraventricular location, and the means for detecting from the second cardiac region includes means for detecting from a ventricular cardiac region.

30. The system of claim 28, where the means for modifying the first value of the electrical pulses includes means for lowering the first value of the electrical pulses by a first amount when the cardiac depolarization in the second cardiac region occurs in direct reaction to the electrical pulse delivered to the first cardiac region.

31. The system of claim 28, including means for conducting a threshold test, and means for setting the first value of the electrical pulses based on the threshold test.

32. The system of claim 31, where the means for conducting the threshold test includes means for delivering test pacing pulses, including an initial high-test pacing pulse, at values over a first value range to the first cardiac region;

means for analyzing the cardiac signal for cardiac depolarizations from the first cardiac region and the second cardiac region which occur as a result of the initial high-test pacing pulse;

means for reducing the values of the test pacing pulses over the first value range until a second cardiac region pacing threshold value is reached where the second cardiac region is no longer depolarized and the first cardiac region is depolarized by the test pacing pulses;

means for continuing to reduce the values of the test pacing pulses over the first value range until a first cardiac region pacing threshold value is reached where both the first cardiac region and the second cardiac region are no longer depolarized by the test pacing pulses; and

means for setting the first value based on the first cardiac region pacing threshold value and the second cardiac region pacing threshold value.

33. The system of claim 32, including means for setting the first value at a value midway between the first cardiac region pacing threshold value and the second cardiac region pacing threshold value.

34. The system of claim 33, including means for adding a safety margin value to the first value midway between the first cardiac region pacing threshold value and the second cardiac region pacing threshold value.

35. The system of claim 31, where the means for conducting the threshold test includes means for delivering test pacing pulses, including an initial low-test pacing pulse, at values over a first value range to the first cardiac region;

means for analyzing the cardiac signal for cardiac depolarizations from the first cardiac region and the second cardiac region which occur as a result of the initial low-test pacing pulse;

means for increasing the values of the test pacing pulses over the first value range until a first cardiac region pacing threshold value is reached where the first cardiac region is depolarized and the second cardiac region is not depolarized by the test pacing pulses;

means for continuing to increase the values of the test pacing pulses over the first value range until a second cardiac region pacing threshold value is reached where both the first cardiac region and the second cardiac region are depolarized by the test pacing pulses; and

means for setting the first value based on the first cardiac region pacing threshold value and the second cardiac region pacing threshold value.

36. The system of claim 35, including means for setting the first value at a value midway between the first cardiac region pacing threshold value and the second cardiac region pacing threshold value.

37. The system of claim 36, including means for adding a safety margin value to the first value midway between the first cardiac region pacing threshold value and the second cardiac region pacing threshold value.

38. A system for use in a heart having a first cardiac region and a second cardiac region, comprising:

a pulse circuit connected to a first electrode;

an amplifier circuit connected to a second electrode;

an autocapture system including an autocapture protocol adapted to prevent unintended cardiac depolarizations sensed at the second electrode due to pulses delivered by the pulse circuit through the first electrode when the first electrode is positioned in the first cardiac region and the second electrode is positioned in the second cardiac region; and

a depolarization circuit adapted to use the autocapture protocol to detect the unintended cardiac depolarizations, the depolarization circuit producing a signal indicating the detected depolarizations.

39. The system of claim 38, further comprising a pulse adjustment circuit, coupled to the pulse circuit, the pulse adjustment circuit adapted to modify a first value associated with the pulses delivered by the pulse circuit based on whether an occurrence of cardiac depolarization sensed at the second electrode is detected.

40. The system of claim 38, further comprising:

a first coupling capacitor, connected to the first electrode;

a second coupling capacitor, connected in series to the first coupling capacitor; and

a first switch, connected in parallel to the second coupling capacitor, to allow a selective employment of the second coupling capacitor.

41. The system of claim 40, wherein a first capacitance of the first coupling capacitor is greater than ten microfarads, and a second capacitance of the second coupling capacitor is less than five microfarads.

42. The system of claim 41, further comprising a pulse adjustment circuit, coupled to the pulse circuit, the pulse adjustment circuit adapted to modify a first value associated with the pulses delivered by the pulse circuit based on whether an occurrence of cardiac depolarization sensed at the second electrode is detected.

43. A system for use in a heart having a first cardiac region and a second cardiac region, comprising:

a pulse circuit coupled to a first electrode;

a sense amplifier circuit having an input and an output, the input coupled to one of the first electrode and a second electrode through a first switch; and

a depolarization circuit coupled to the output of the sense amplifier circuit, the depolarization circuit adapted to detect cardiac depolarizations sensed at one of the first and second electrodes due to pulses delivered by the pulse circuit through the first electrode when the first electrode is positioned in

the first cardiac region and the second electrode is positioned in the second cardiac region, the depolarization circuit producing a signal indicating the detected depolarizations.

44. The system of claim 43, further comprising a pulse adjustment circuit, coupled to the pulse circuit, the pulse adjustment circuit adapted to modify a first value associated with the pulses delivered by the pulse circuit based on whether an occurrence of cardiac depolarization sensed at the second electrode is detected.

45. The system of claim 43, wherein the pulse circuit comprises:

a first coupling capacitor, connected to the first electrode;

a second coupling capacitor, connected in series to the first coupling capacitor; and

a first switch, connected in parallel to the second coupling capacitor, to allow a selective employment of the second coupling capacitor.

46. The system of claim 45, wherein a first capacitance of the first coupling capacitor is greater than ten microfarads, and a second capacitance of the second coupling capacitor is less than five microfarads.

47. The system of claim 46, further comprising a pulse adjustment circuit, coupled to the pulse circuit, the pulse adjustment circuit adapted to modify a first value associated with the pulses delivered by the pulse circuit based on whether an occurrence of cardiac depolarization sensed at the second electrode is detected.

48. A method, comprising:

delivering electrical pulses at a first value to a first cardiac region; and

using an autocapture protocol to detect cardiac depolarizations sensed in a second cardiac region due to the electrical pulses delivered to the first cardiac region, the autocapture protocol adapted to prevent unintended depolarization of the second cardiac region due to the electrical pulses delivered to the first cardiac region.

49. The method of claim 48, further comprising modifying the first value based on whether the cardiac depolarization in the second cardiac region is detected.

50. The method of claim 49, wherein the first cardiac region is an atrial region, and the second cardiac region is a ventricular region.

51. The method of claim 49, wherein the first cardiac region is a ventricular region, and the second cardiac region is an atrial region.

52. The method of claim 49, wherein modifying the first value includes increasing the first value by a first amount when the cardiac depolarization in the second cardiac region is not detected.

53. The method of claim 52, wherein the first value is a first pulse width value.

54. The method of claim 52, wherein the first value is a first voltage value.

55. The method of claim 52, wherein increasing the first value includes increasing the first value by a first percentage of the first voltage value.

56. The method of claim 54, wherein increasing the first value includes increasing the first value by approximately two tenths (0.2) volts.

57. The method of claim 49, wherein modifying the first value includes modifying the first value until a second cardiac region pacing threshold is reached, the second cardiac region pacing threshold being the first value required to capture the second cardiac region.

58. The method of claim 57, further comprising using the autocapture protocol to detect cardiac depolarizations sensed in the first cardiac region due to the electrical pulses delivered to the first cardiac region.

59. The method of claim 58, further comprising modifying the first value based on whether the cardiac depolarization in the first cardiac region is detected.

60. The method of claim 59, wherein modifying the first value includes modifying the first value until a first cardiac region pacing threshold is reached, the first cardiac region pacing threshold being the first value required to capture the first cardiac region.

61. The method of claim 60, further including:

setting the first value based on the first and second cardiac region pacing thresholds.